User Manual

Version V1.4 Oct. 2010

VariPOS™ / VariPPC™

© Copyright Poindus Systems 2010

Copyright 2010
All Rights Reserved
Manual Version 1.4

The information contained in this document is subject to change without notice.
We make no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. We shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced or translated to another language without the prior written consent of the manufacturer.

TRADEMARK

Poindus®/ VariPOS ™ are registered trademarks of Poindus Systems.
Intel®/ PineView® are registered trademarks of Intel® Corporation. Microsoft® and Windows® are registered trademarks of Microsoft Corporation.
Other trademarks mentioned herein are the property of their respective owners.

Safety

IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrical power supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
2. Read these instructions carefully. Save these instructions for future reference.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

CE

This device complies with the requirements of the VariPOS™ directive 2004/108/EC with regard to "Electromagnetic compatibility".

FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation

CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

© Copyright Poindus Systems 2010

Table of Contents

1 Packing List 5

1-1 Standard items 5
1-2 Accessory items 6

2 System Overview 7

2-1 I/O Interface 9

3 Specification 10

4 System Assembly & Disassembly 11

4-1 Open the System 11
4-2 Replace the HDD 13
4-3 Install a Customer Display 15
4-4 Install a Second Display 16
4-5 Install a Cash Drawer 19
4-6 Install the MSR & iButton Reader 21
4-7 Install the Metal Stand 22
4-8 Install the Wall Mount Kits 23

5 Jumper Settings 24

5-1 Motherboard Layout (D410 & D510 CPU) 24

6 Serial Port Pin 9 Mode Settings 27

7 Spare parts List 29

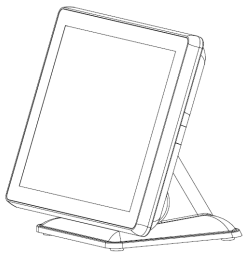
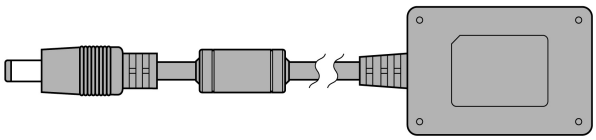
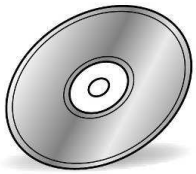
8 Appendix 45

© Copyright Poindus Systems 2010

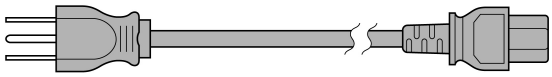
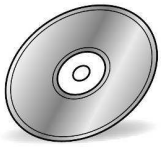
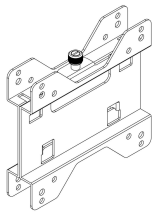
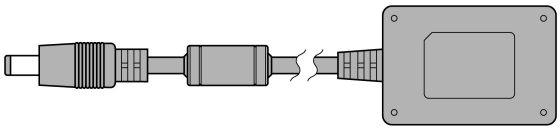
1 Packing List

1-1 Standard items

【 VariPOS™ 】

a. 	c. 
b. 	d.
a. System b. Driver bank CD	c. Power adapter d. Power cord

【 VariPPC™ 】

a.	d. 
b. 	e. 
c. 	a. System b. Driver bank CD c. Power adapter d. Power cord e. Wall Mount Kit

© Copyright Poindus Systems 2010

1-2 Accessory items

	Part No	Description	Q'ty
1	3XCC00000010	Touch Screen Wipes ,20*15mm	1
2	3XPP00000010	SPIRAL WARPPING BANDS SWB-16,L15mm	1
3	*7P0000000030	*1 SCREW PACK: security screws	1
		Screw driver	1
4	3CMD9M100100	RJ-45 Cable	1
5	3CW000000190	VGA Cable*2	1

*1: There are security screws and a screw driver for replacing the hard drive fixing screw. Customers can use the security screws to ensure HDD security.

*2: VGA Cable is only for I/O interface with VGA port.

© Copyright Poindus Systems 2010

2 System Overview

【VariPOS™】

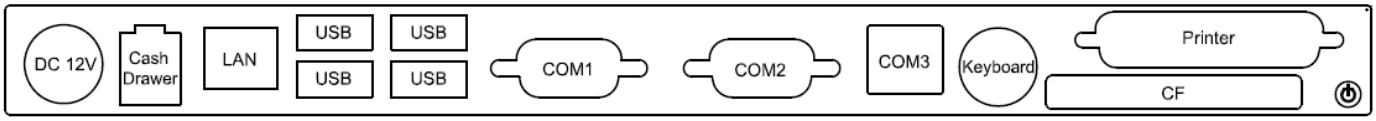
© Copyright Poindus Systems 2010

【VariPPC™】

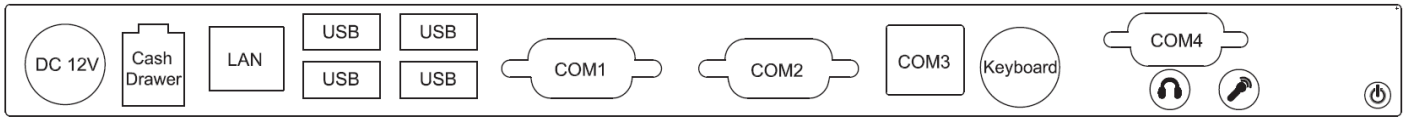
© Copyright Poindus Systems 2010

2-1 I/O Interface

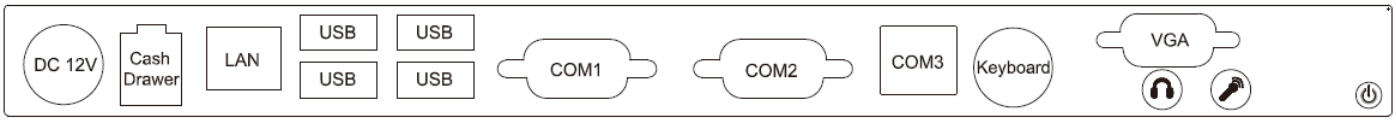
【Standard Version】



【COM 4 Version】



【VGA Version】



© Copyright Poindus Systems 2010

3 Specification

Main Board	CPU	Intel® Pineview D410 (Single Core) 1.66GHz with L2 Cache 512KB
		Intel® Pineview D510 (Dual Core) 1.66GHz with L2 Cache 1MB
	Chipset	Intel® Pineview + ICH8M
	System Memory	1 x SO-DIMM DDRII 667, up to 2GB
Display	TFT LCD	38.1cm (15")
	Brightness	250nits
	Resolution	1024 x 768
	Touch Screen	True Flat Projected Capacitive Technology / True Flat 5-Wire Resistive
Storage	HDD Type	1 x SATA 6.4cm (2.5") HDD
	Compact Flash Type	1 x Slot Type II (Standard)
I/O Ports -External	DC Input	1 x Mini Din 4P (DC 12V only)
	Cash Drawer	1 x RJ-11 (Power Pin 12V)
	Network (LAN)	1 x Gigabit Ethernet by RJ-45
	USB Port	4 x USB 2.0
	Serial Port	4 x RS-232 COM1/2 : DB-9, RS-232, Pin9 w/RI/5V/12V Selectable by BIOS
		COM3 : RJ-48 for VFD, RS-232, Pin10 w/RI/5V/12V Selectable by BIOS
		COM4 : DB-9, RS-232, Pin9 w/RI/5V/12V Selectable by BIOS (optional)
	PS/2 Port	1 x PS/2 connector for Keyboard
	LPT Port	1 x DB-25 Printer Port (Standard)
	VGA Port	1 x DB-15 VGA Port (optional)
I/O Ports -Internal	Card Reader & iButton	COM5 : Internal Pin header for Card Reader & iButton
	Audio	AC 97 2.0 compliant, 2W Speaker x 2
	Bus Expansion	1 x Mini-PCI-E Slot
Compliance	IP 66 on front panel	
System Management	Desktop Management Interface (DMI) / Preboot Execution Environment (PXE) / Wake on LAN (WoL) / Advanced Configuration and Power Interface (ACPI)	
OS Support	Windows 7, Windows POSReady 2009, WEPOS, Windows XP Pro for Embedded, Fedora(Linux)	
Power Supply	External adapter, DC Model:80 Watts, Voltage:+12VDC 6.6 max	
Material	Main Unit: Die-casting aluminum ; I/O Cover: Plastic	
Color	Main Unit: Grey *Customized color for plastic parts	
Certifications	CE, FCC, Class-A, RoHS, WEEE	
Dimensions (W x H x D)	370 x 287 x 55mm	
Weight	4.7 Kg (Aluminum Base: 1.3 Kg)	
VESA Mounting	100 x 100mm	
Operating Temperature	0℃ ~ 40℃, 10% ~ 90% RH, non-condensing	
Storage Temperature	-20℃ ~ 60℃, 10% ~ 90% RH, non-condensing	

*Poindus reserves the right to change the specification without prior notice.

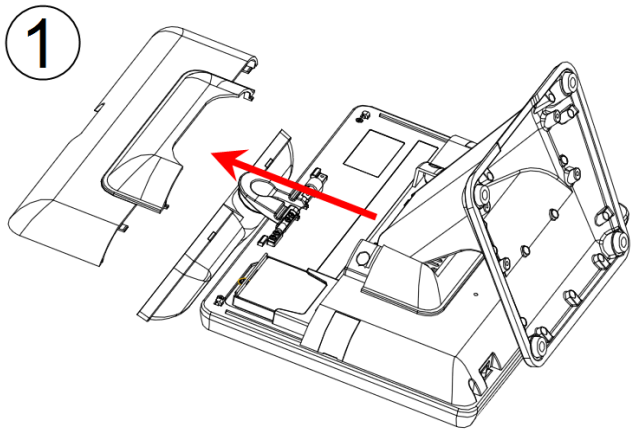
© Copyright Poindus Systems 2010

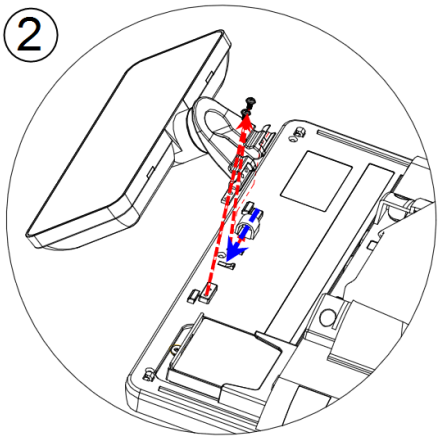
4 System Assembly & Disassembly

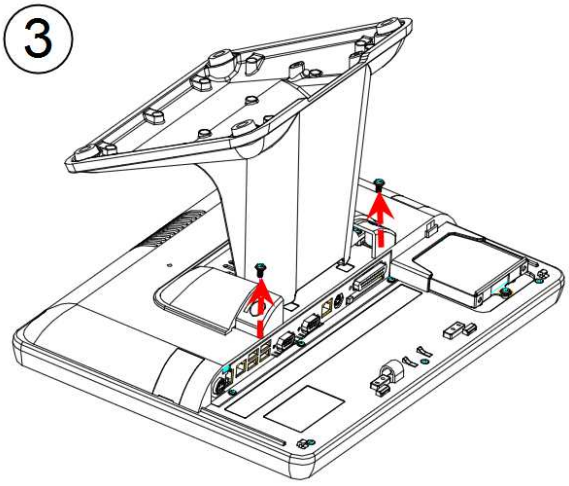
4-1 Open the System

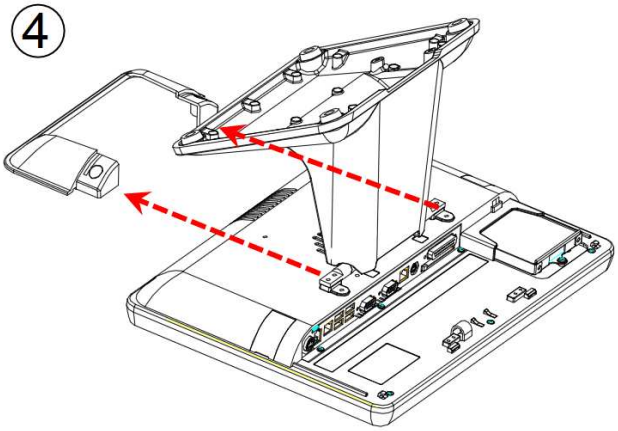
To access the inside system, you need to open the system first and the procedure of opening the system is as below:

1. Open the back IO cover
2. Release the screws of VFD
3. Release the screws of hinge cover
4. Remove the plastic hinge cover parts
5. Release the screws of base
6. Open the plastic cover from two sides
7. Release the screws of aluminium back frame



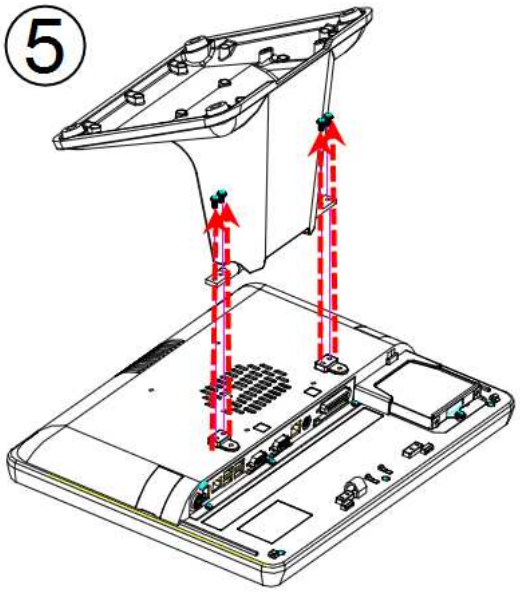




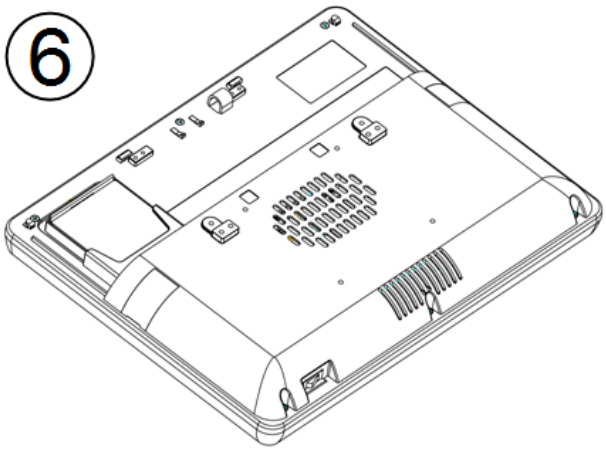


© Copyright Poindus Systems 2010

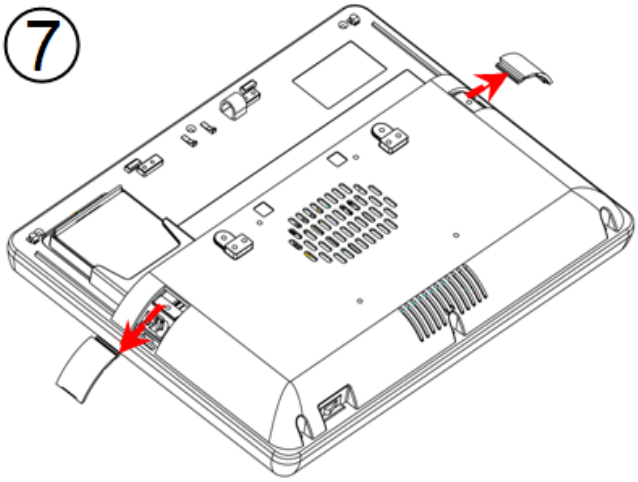
5



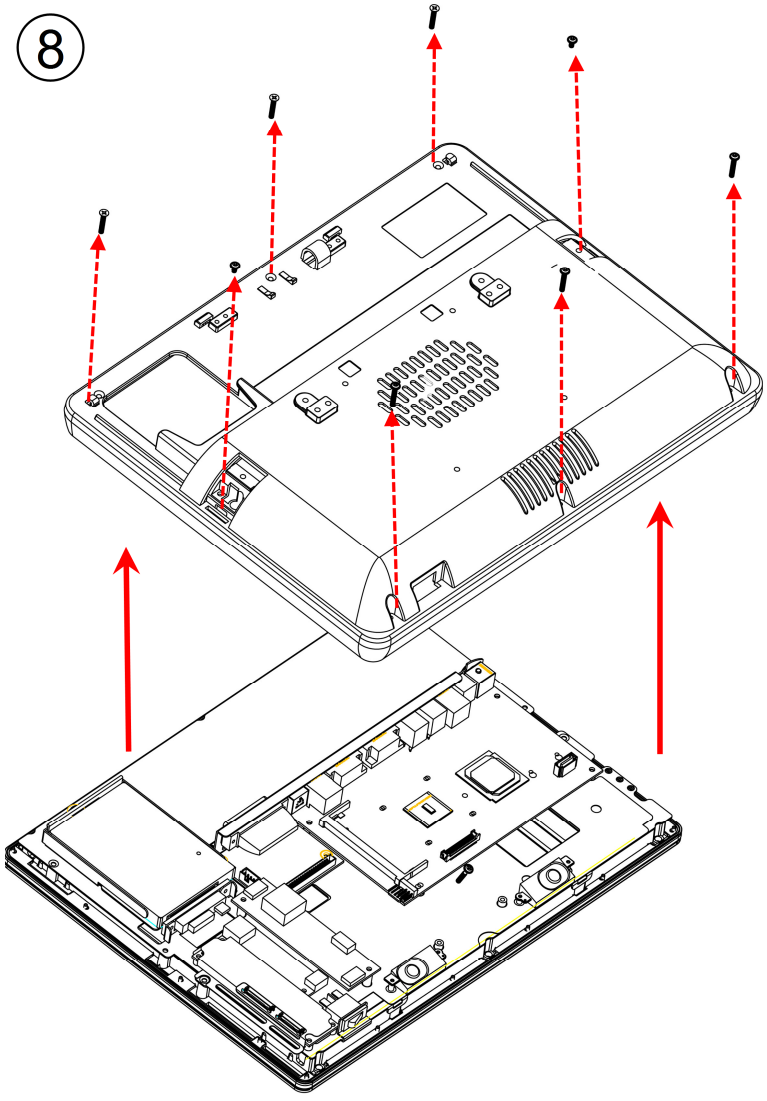
6



7



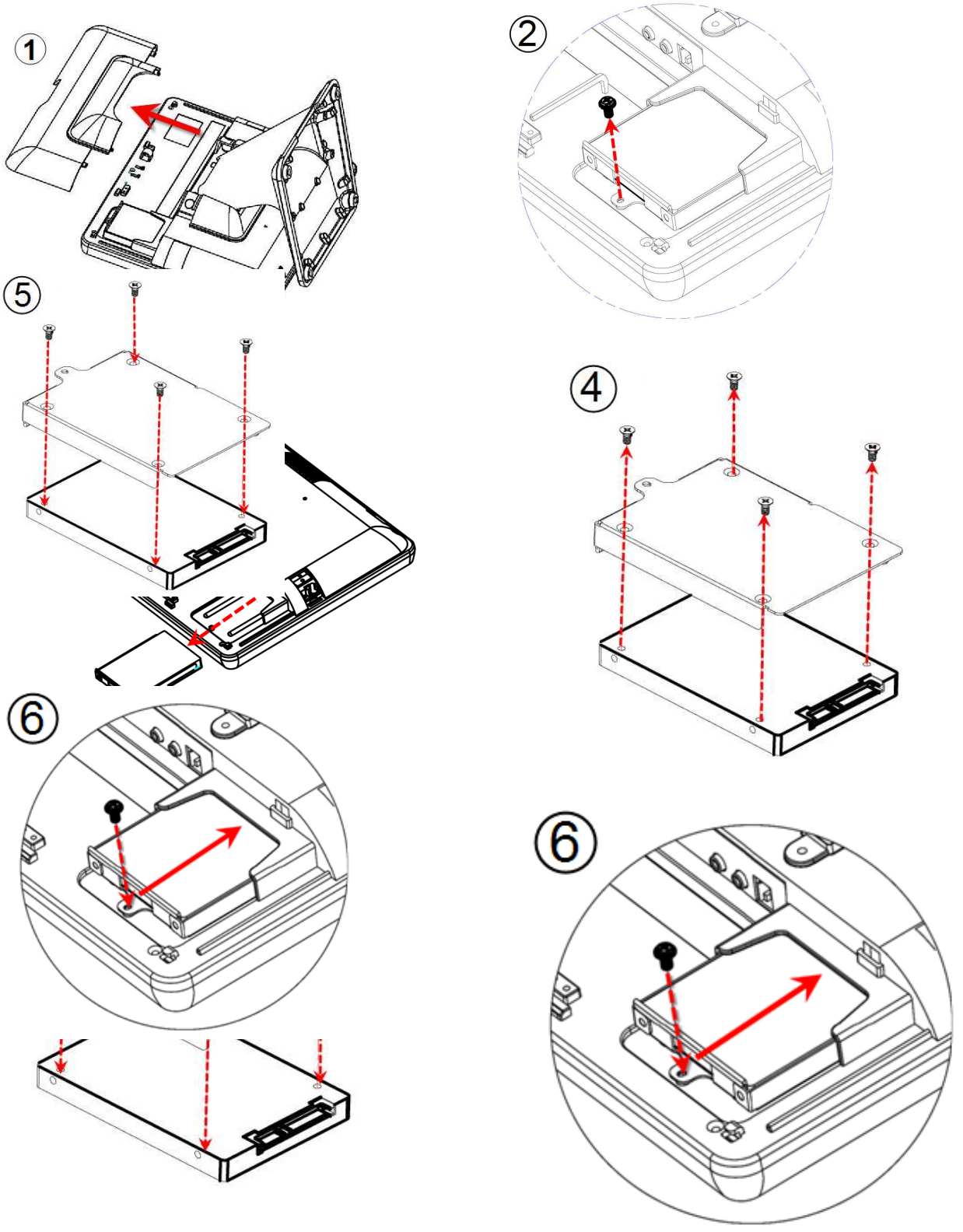
8



© Copyright Poindus Systems 2010

4-2 Replace the HDD

1. Open the IO back cover
2. Release the 1x screw from HDD tray
3. Remove the HDD tray.
4. Release the 4 x round screws on the HDD tray and replace HDD
5. Screw 4 x round screws on the HDD tray and insert the HDD tray into the whole system HDD slot
6. Fix HDD tray on the system with the 1x screw

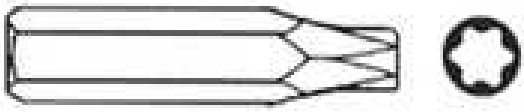


© Copyright Poindus Systems 2010

Screw Pack

Item	Part No.	Description	Q'ty
A	3SMFH30040N0	F-HEAD SCREW:M3*0.5-4mm,NI	5
B	3SMPH30062N0	P-HEAD SCREW:M3*0.5-6mm,NI(FLOWER)	2
C	3SLFR03651B0	Screwdriver(FLOWER)	1
D	3SMUH30061N0	ROUND WASHER HEAD SCREWS:m3*0.5-6MM,NI	3

Security Screws*



* There are security screws and a screw driver enclosed in product carton.
* Customers can use the special security screws to ensure HDD security.

© Copyright Poindus Systems 2010

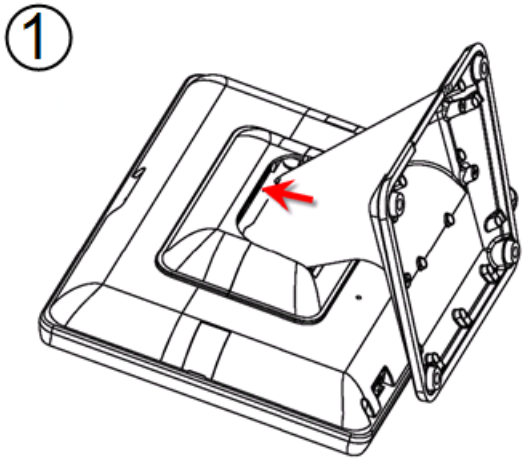
4-3 Install a Customer Display

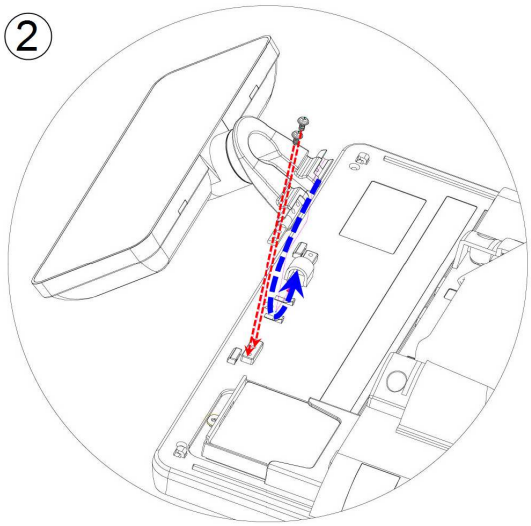
1. Put the panel on the flat table & open the IO back cover of system.

2. Assemble the customer display hinge into the customer display slot and fasten 2 x screws.

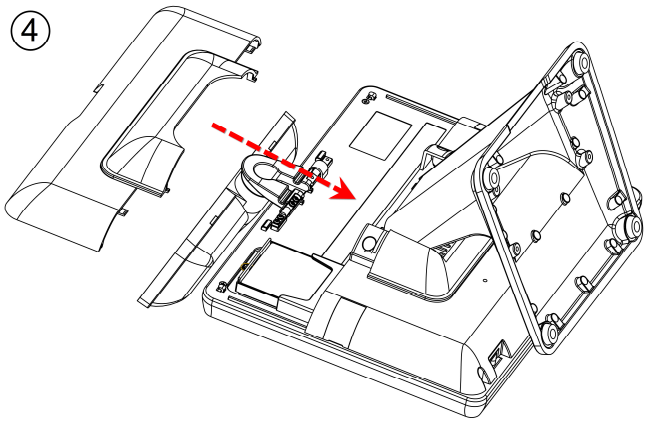
3. Connect the customer display into COM3 via the cable management slot and adjust COM3 voltage to +12V in BIOS (refer to Chapter 6)

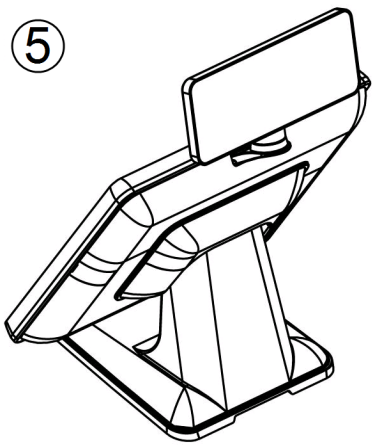
4. Fasten the IO cover into the right position and turn the system on the right position.





Cable Managment Slot

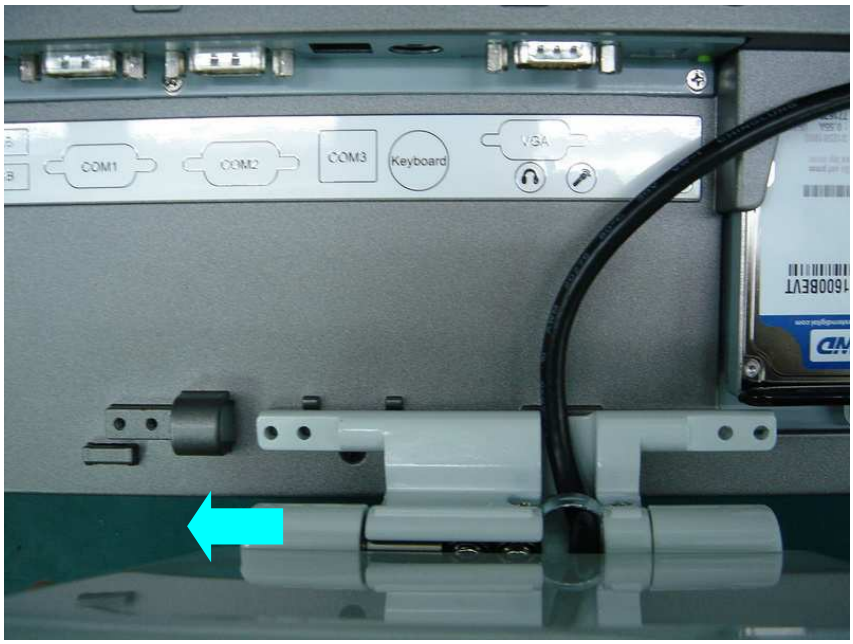




© Copyright Poindus Systems 2010

4-4 Install a Second Display

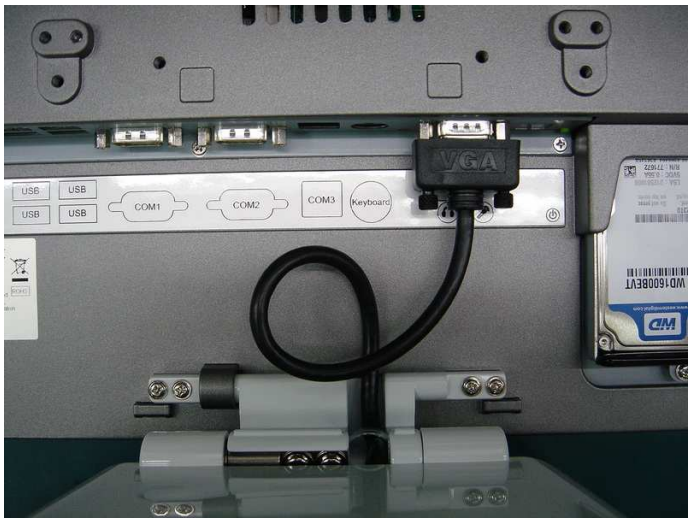
1. Slide the 2nd display hinge into the hinge holder on VariPOS.



2. Tighten the 4 screws that attached in the accessory box.

© Copyright Poindus Systems 2010

3. Plug the VGA cable to VGA port on the terminal.



4. Don’t forget to insert the I/O cover.

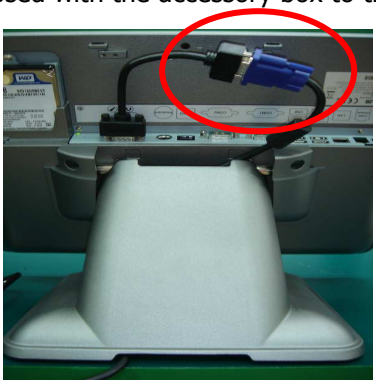
5. Done

© Copyright Poindus Systems 2010

Installation for external monitor

1. Put the VGA cable of the external monitor through the base.

2. Connect the extension VGA cable enclosed with the accessory box to the VGA cable of the external monitor.



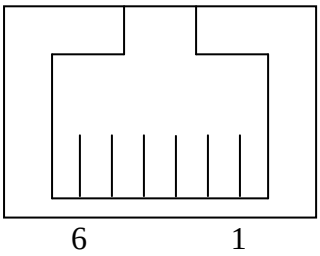
3. Plug the extension VGA cable to VGA port and install the I/O cover back to finish the installation.

© Copyright Poindus Systems 2010

4-5 Install a Cash Drawer

You can install a cash drawer through the cash drawer port. Please verify the pin assignment before installation.

Cash Drawer Pin Assignment



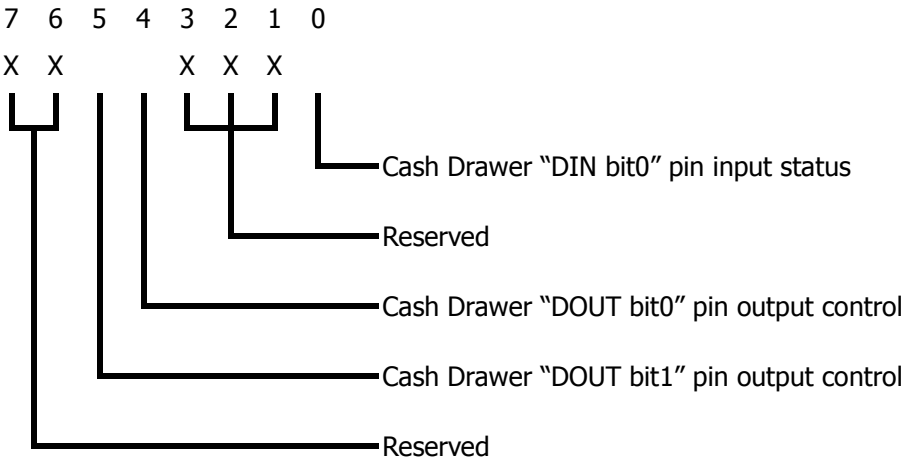
Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V
5	DOUT bit1
6	GND

Cash Drawer Controller Register

The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

Register Location: A22h
Attribute: Read / Write
Size: 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Reserved		Write	Write	Reserved			Read


7 6 5 4 3 2 1 0
X X X X X
Cash Drawer "DIN bit0" pin input status
Reserved
Cash Drawer "DOUT bit0" pin output control
Cash Drawer "DOUT bit1" pin output control
Reserved

© Copyright Poindus Systems 2010

Bit 0: Cash Drawer "DIN bit0" pin input status.

= 1: the Cash Drawer closed or no Cash Drawer

= 0: the Cash Drawer opened

Bit 1: Reserved

Bit 2: Reserved

Bit 3: Reserved

Bit 4: Cash Drawer "DOUT bit0" pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

Bit 5: Cash Drawer "DOUT bit1" pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

Bit 6: Reserved

Bit 7: Reserved

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

Cash Drawer Control Command Example

Use Debug.EXE program under DOS

Command	**Cash Drawer**
O A22 10	Opening
O A22 00	Allow to close
➢ Set the I/O address A22h bit4 =1 for opening Cash Drawer by "DOUT bit0" pin control. ➢ Set the I/O address A22h bit4 = 0 for allow close Cash Drawer.	

Command	**Cash Drawer**
I A22	Check status
➢ The I/O address A22h bit0 =0 mean the Cash Drawer is opened or not exist. ➢ The I/O address A22h bit0 =1 mean the Cash Drawer is closed.	

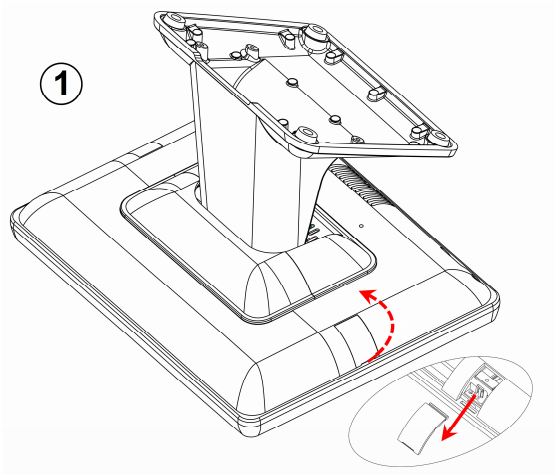
© Copyright Poindus Systems 2010

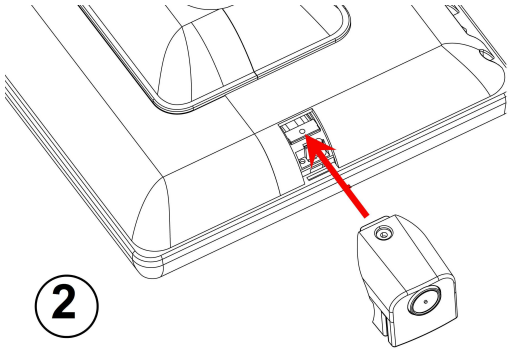
4-6 Install the MSR & iButton Reader

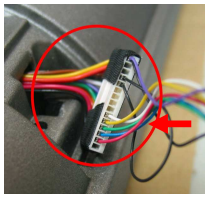
1. Open the right side cover of system. * MSR connection is supported on the right side

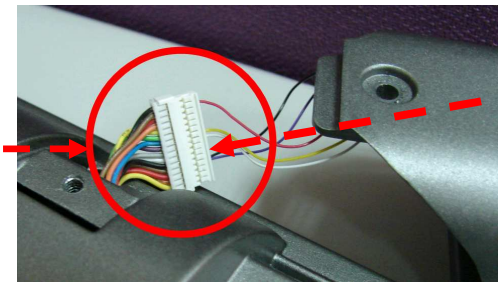
2. Connect MSR to System connector, system connector supports PS/2 and RS-232 interface.

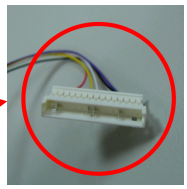
3. Fasten the MSR screw on system





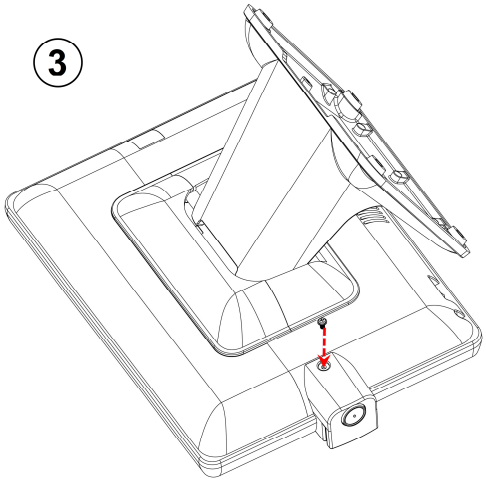


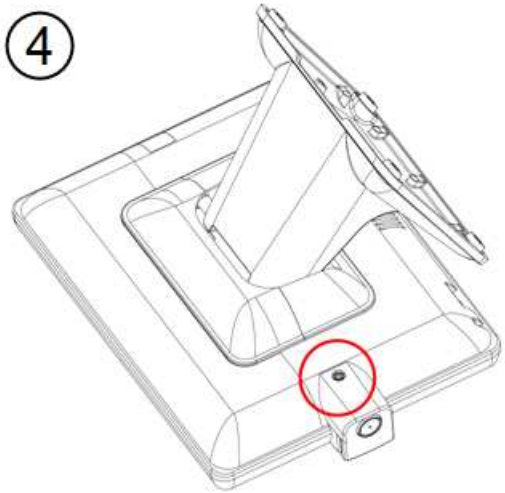




MSR: RS-232 Interface

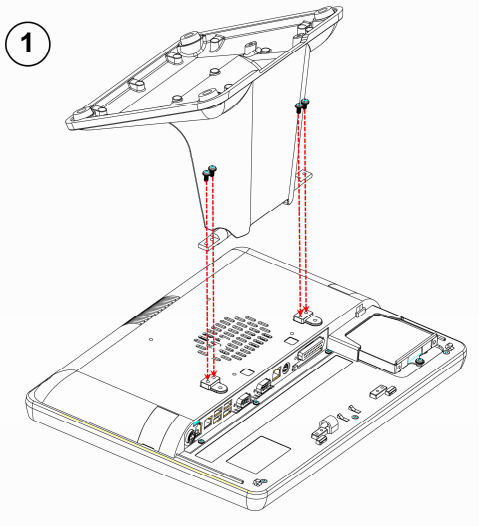
System connector supports PS/2 and RS-232 interface

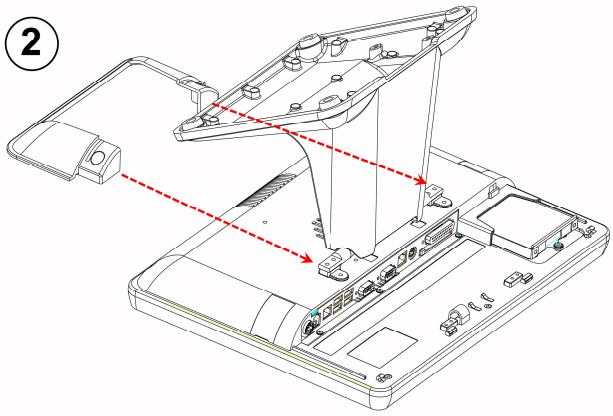


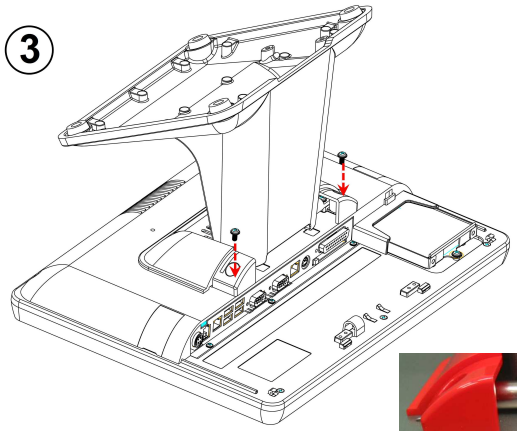


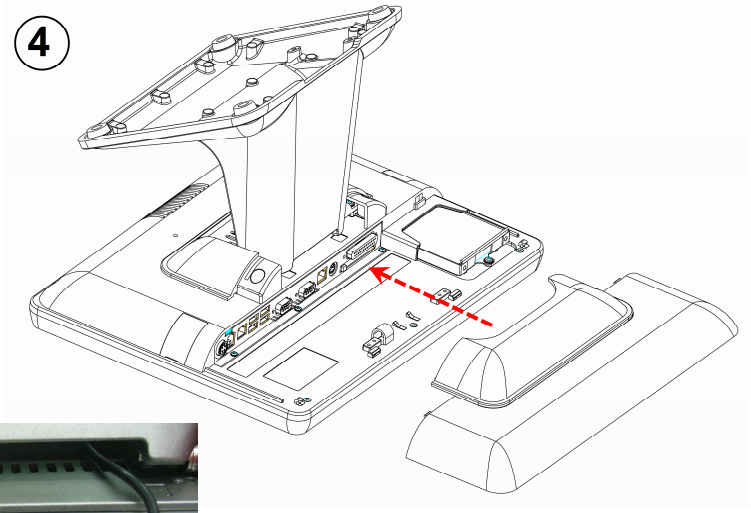
© Copyright Poindus Systems 2010

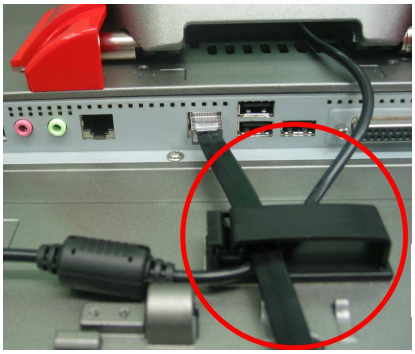
4-7 Install the Metal Stand



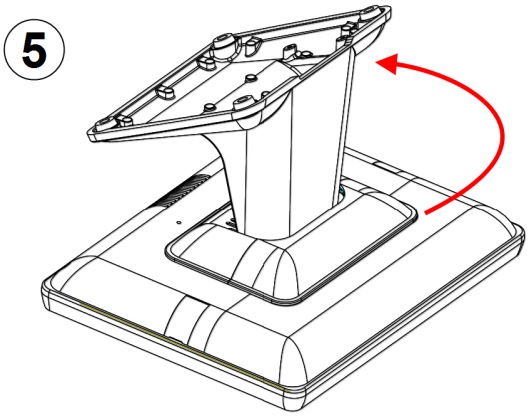


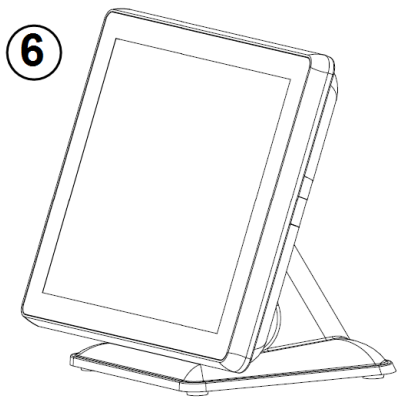






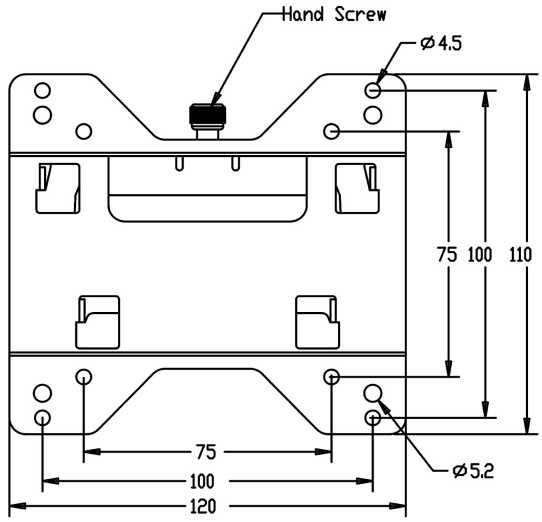
Power & VFD Cable Management

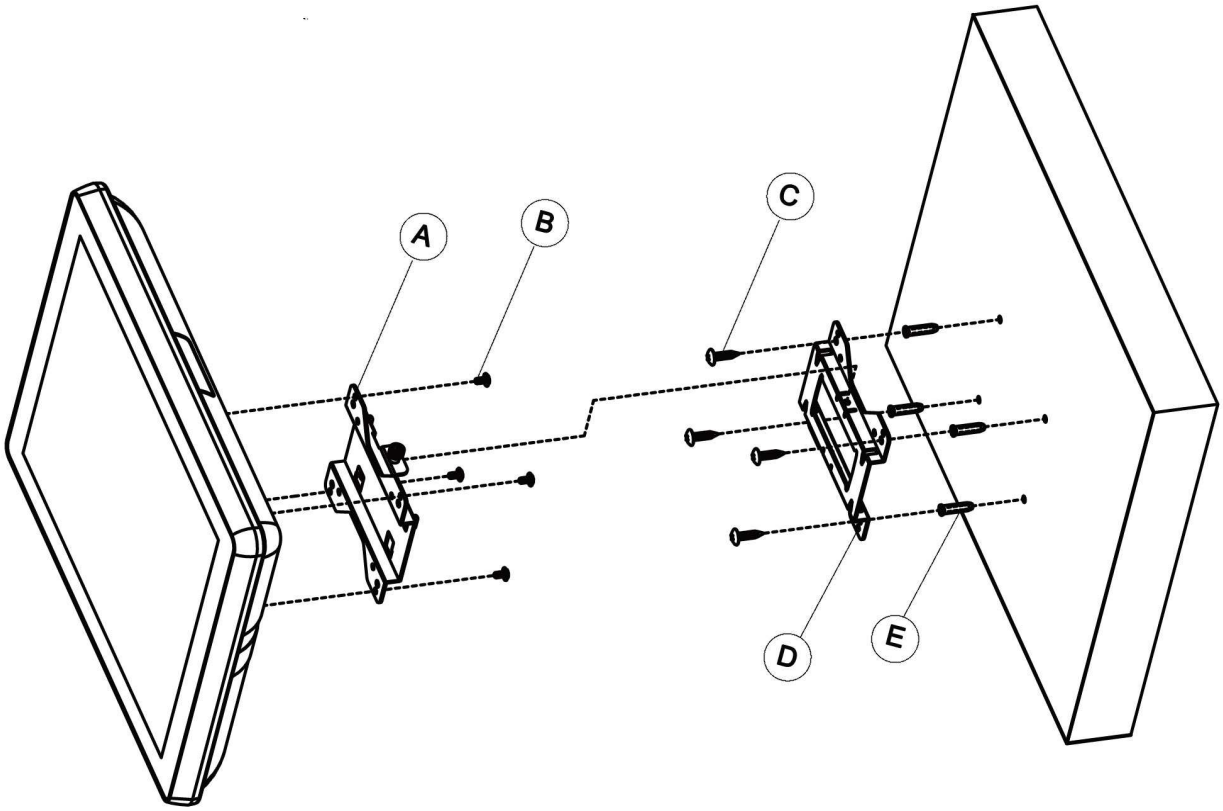




© Copyright Poindus Systems 2010

4-8 Install the Wall Mount Kits

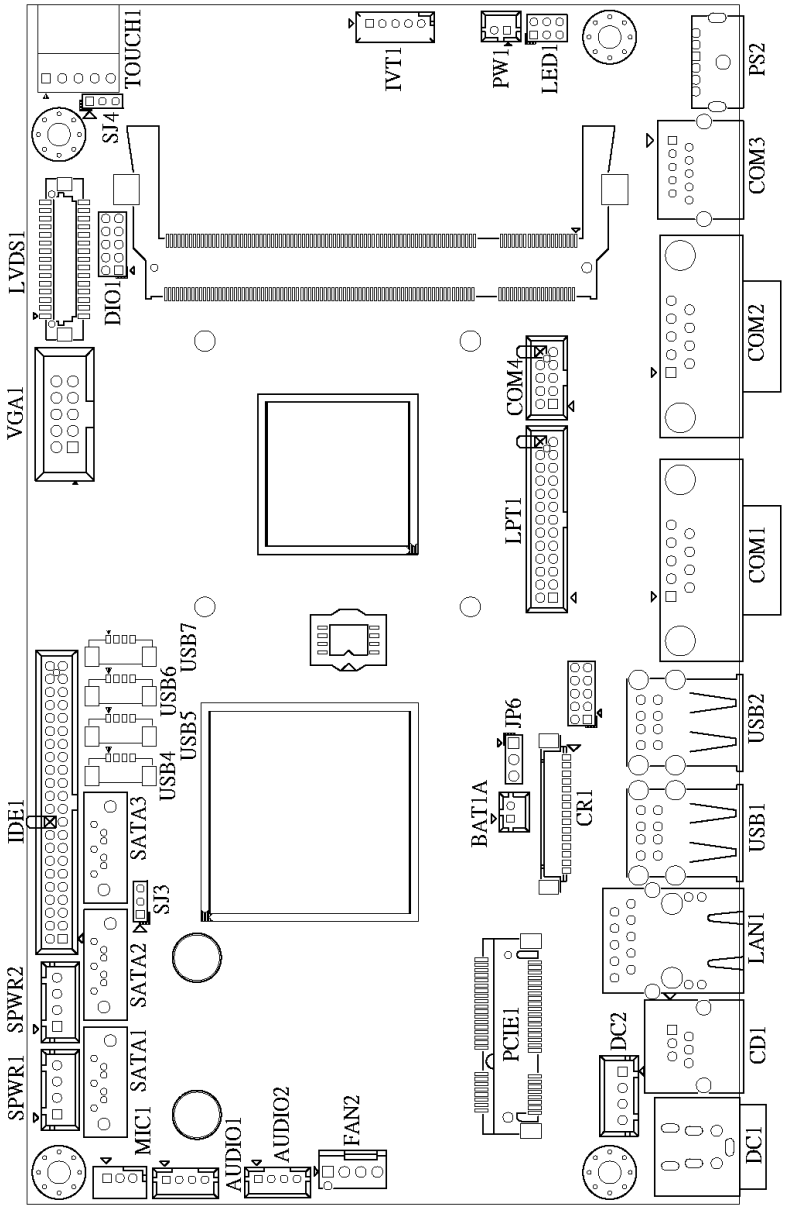




© Copyright Poindus Systems 2010

5 Jumper Settings

5-1 Motherboard Layout (D410 & D510 CPU)



Connector & Jumper Setting

DC1	Mini Din 4P for Power Input Port
DC2	Internal Power Input Connector
CD1	RJ11 for Cash Drawer Port
LAN1	RJ45 for LAN Port
USB1, 2	USB dual stack for USB Port
USB4, 5, 6, 7	USB Connector
COM1	D-SUB 9 Pin for COM1 Port
COM2	D-SUB 9 Pin for COM2 Port
COM3	RJ48 for COM3 Port
COM4	COM4 Connector
PS2	PS/2 for Keyboard Port
SATA1	SATA 7 Pin for SATA1 Connector
SATA2	SATA 7 Pin for SATA2 Connector
SATA3	SATA 7 Pin for SATA3 Connector
SPWR1, 2	Power Output for SATA HDD
IDE1	PATA Connector
LVDS1	LCD Connector
VGA1	VGA Connector
CR1	Card Reader Connector
AUDIO1	Speaker out Connector
AUDIO2	Line out Connector
MIC1	MIC in Connector
LPT1	Printer Connector
TOUCH1	5W Resistive Touch Connector
PCIE1	Mini PCI-E Socket
PW1	Power Button Connector
IVT1	Inverter Connector
FAN2	CPU Fan Connector
LED1	LED Connector
BAT1A	CMOS Battery Connector
DIO1	Digital Input / Output Connector
JP6	Clear CMOS
SJ3	SATA Power Enable for SATA3

© Copyright Poindus Systems 2010

JP6 : Clear CMOS Setup

JP6	Description
1-2	Normal operation
2-3	Clear CMOS

SJ3 : SATA Power Enable for SATA3

SJ3	Description
1-2	5V SATA Power Enable
2-3	Normal operation

- **SJ3 setting SATA3 pin7 is GND or 5V.**

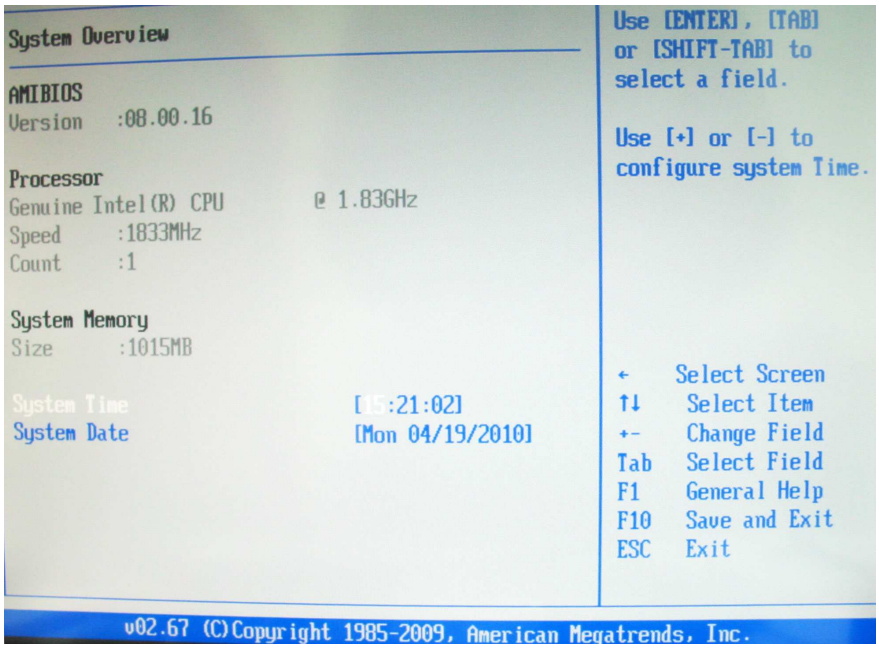
© Copyright Poindus Systems 2010

6 Serial Port Pin 9 Mode Settings

BIOS Main Menu

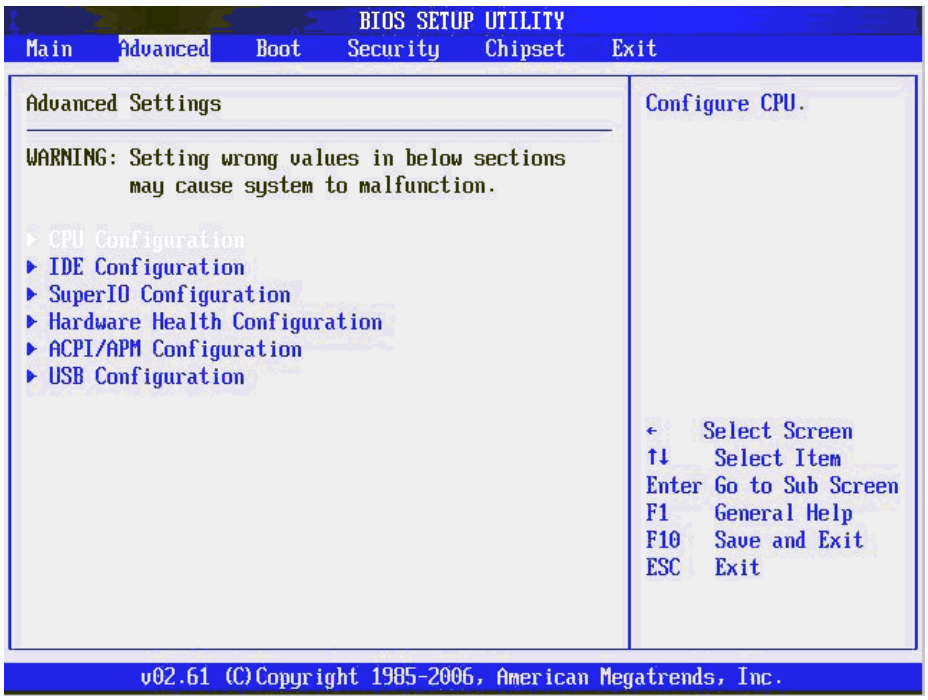
When the BIOS Main Menu is displayed, the following items can be selected. Use the arrow keys to select items and the enter key to accept and enter the sub-menu.

Enter System Overview



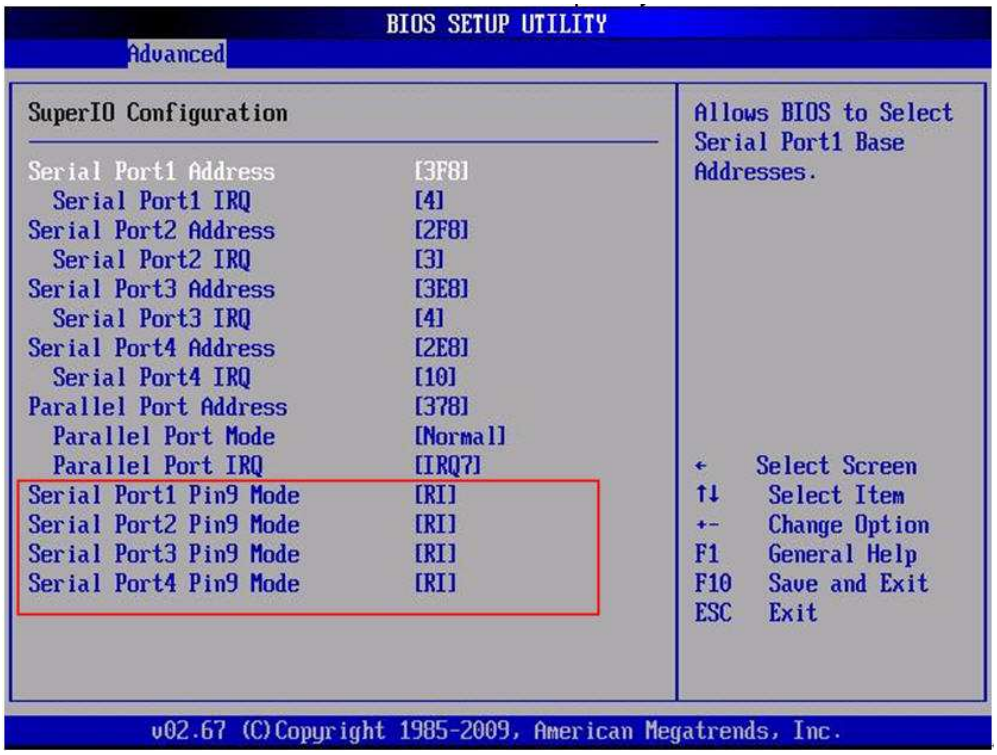
Advanced Settings

Use this menu for set up super IO configuration.



© Copyright Poindus Systems 2010

Select Super IO Configuration



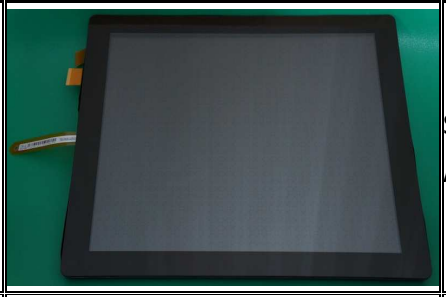
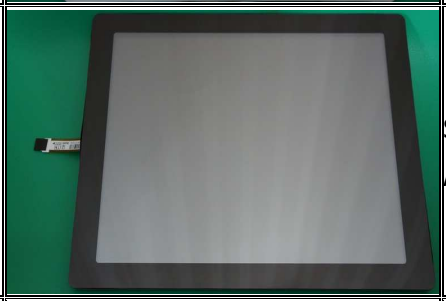
Serial Port 1-4 Pin9 Mode

Enter into serial port 1- 4 Pin9 Mode and set up the options.

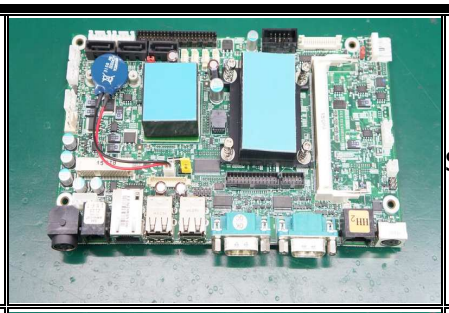
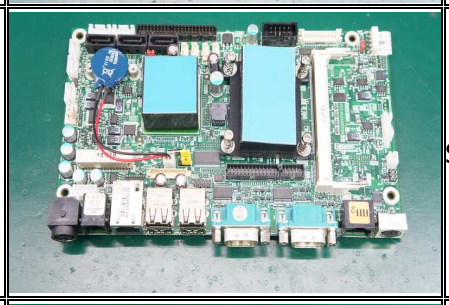
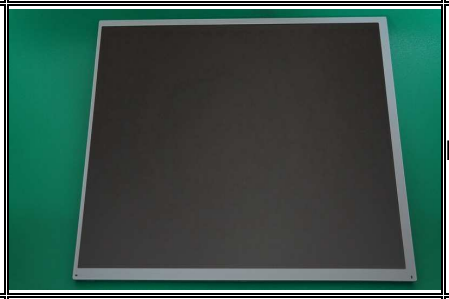
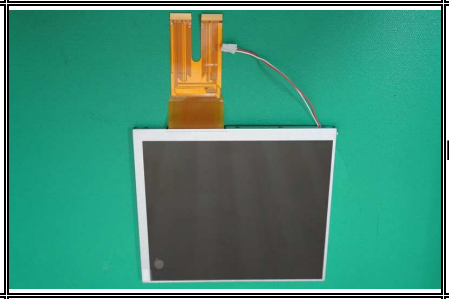
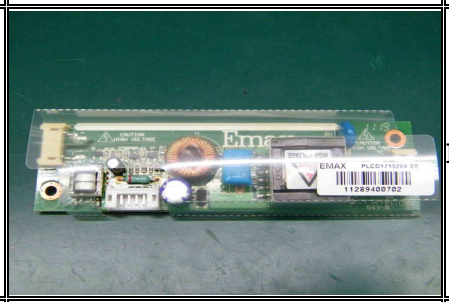
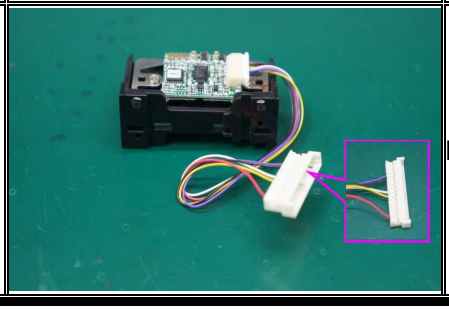
Select the serial port 1 Pin9 mode.

Save and Exit

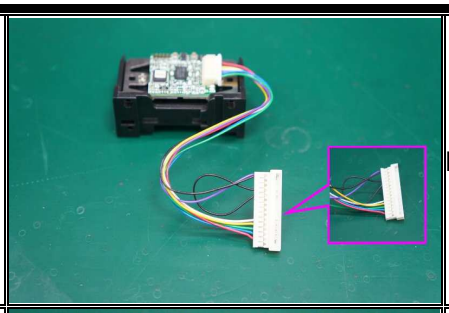
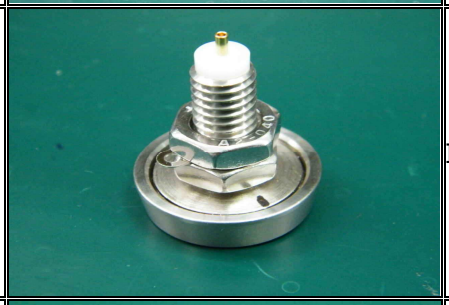
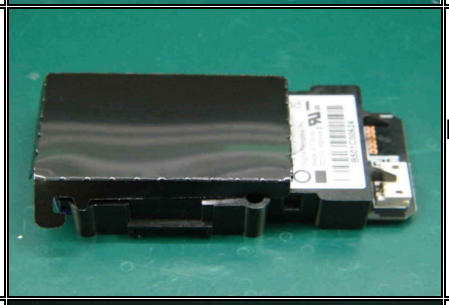
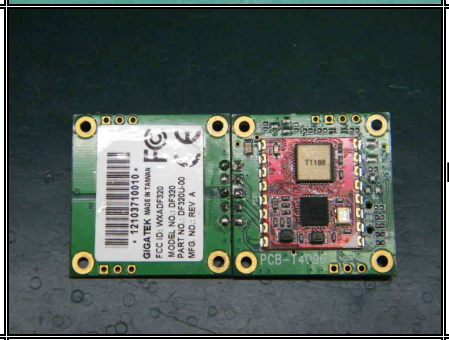
7 Spare parts List

Part Number	Photo	Description
XTOUCHCB0010		SPARE PARTS: TOUCH PANEL CAPACITIVE(BLACK) ASS'Y,PP01
XTOUCHCW0010		SPARE PARTS: TOUCH PANEL CAPACITIVE(WHITE) ASS'Y,PP01
XTOUCHRB0010		SPARE PARTS: TOUCH PANEL RESISTIVE(BLACK) ASS'Y,PP01
XTOUCHRW0010		SPARE PARTS: TOUCH PANEL RESISTIVE(WHITE) ASS'Y,PP01
XTCONTROL010		SPARE PARTS: PCT TOUCH CONTROLER with PLASTIC SCREW ASS'Y,PP01

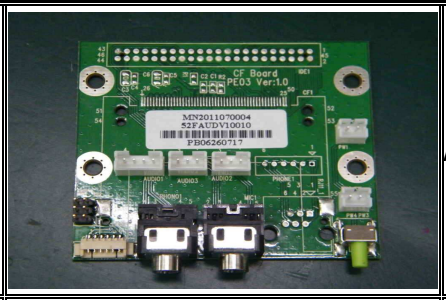
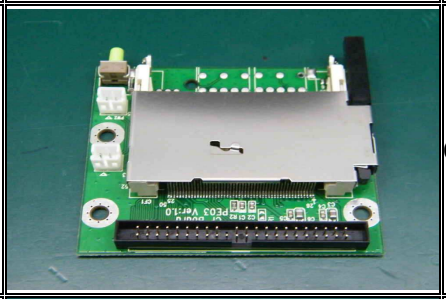
© Copyright Poindus Systems 2010

XMBD41000010		SPARE PARTS: MAIN BOARD: PE01, PINEVIEW D410 V1.0
XMBD51000010		SPARE PARTS: MAIN BOARD: PE01, PINEVIEW D510 V1.0
6PN115052110		LCD PANEL: AUO , 15" TFT, 1024x768
6PN117001710		LED PANEL FOR 2ND DISPLAY
61V205510400		INVERTER:DUAL LAMP 5.5mA PLCD1715204BE
6CR000000010		MSR Module RS232

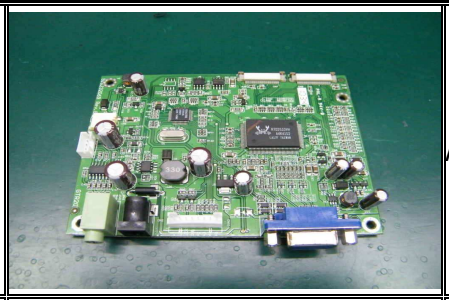
© Copyright Poindus Systems 2010

6CR000000020		MSR Module PS2
6CR842000000		I-BUTTON READER MODULE
6PP000000030		FINGERPRINT: USB FINGERPRINT READER MODULE 50012-0H1-103
6PP000000021		MIFARE SECTOR READER (MF320U-30)
6LN050000010		WIRELESS 802.11 b/g/n USB (MU5205)
2SP2W0081040		Seaker:25*14 4(Ω) 2.0W/2.5W(Max)

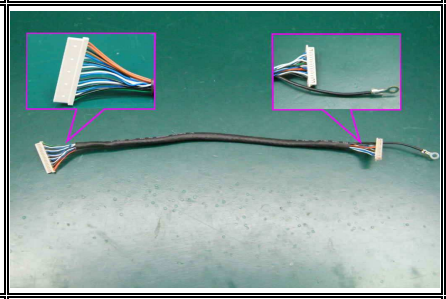
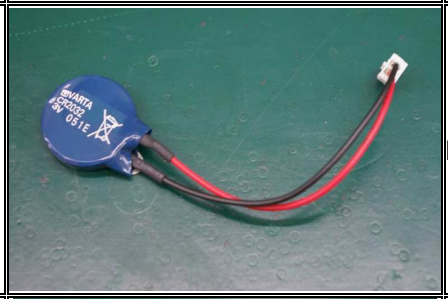
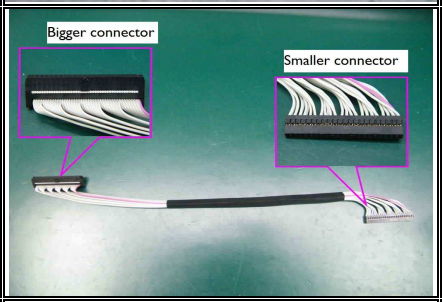
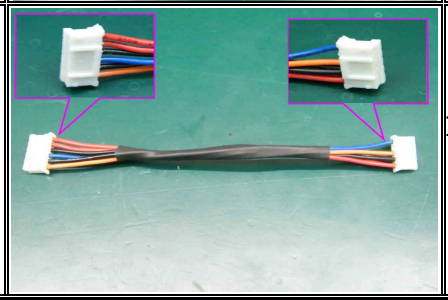
© Copyright Poindus Systems 2010

52FAUDV10010		AUDIO BOARD FOR PE01 V1.0
52F0CFV10000		CF BOARD FOR PE01 V.10
6RM000000010		RAM: SO-DIMM 2G DDRII 667MHz 200P
XHDD16000010		HDD 160G ASSY,PP01
52F008V10006		VFD BOARD: W/FUTABA/10P8C(COM) V1.0 Cable: **3CW000000740**
52FVFDV1000D		VFD BOARD: PE02 V1.0 Cable: **3CW000000150**

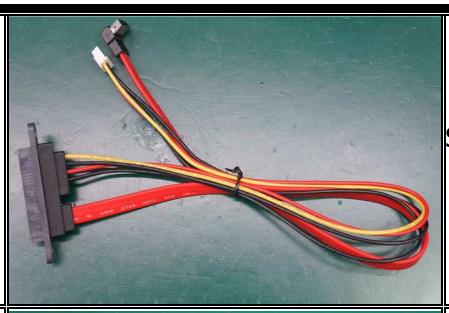
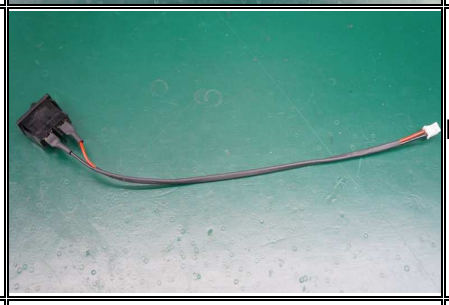
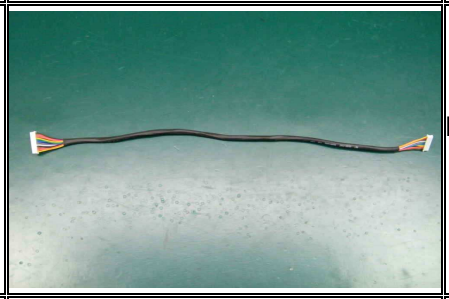
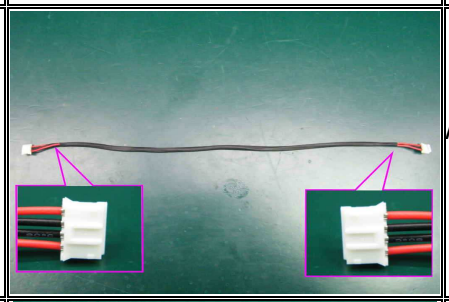
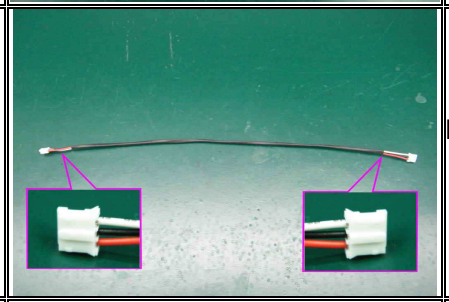
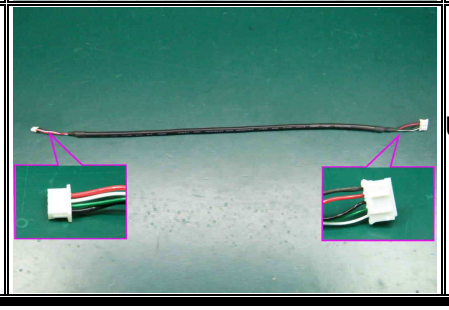
© Copyright Poindus Systems 2010

52ADB0000010		AD BOARD FOR 2ND DISPLAY
6PWA0804C000		POWER ADAPTER: DC12V/6.6A (EA11003C)
3CP000000050		POWER CORD (Brazil) TO MINI 3P
3CP000000040		POWER CORD (AU) TO MINI 3P
3CP000000030		POWER CORD (UK) TO MINI 3P
3CP000000010		POWER CORD (USA) TO MINI 3P

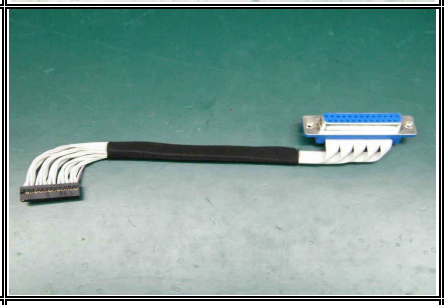
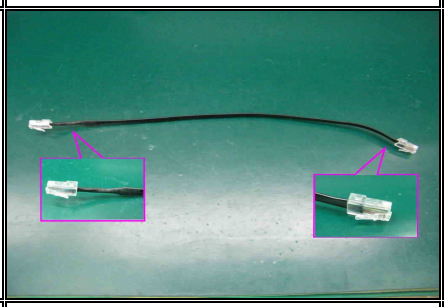
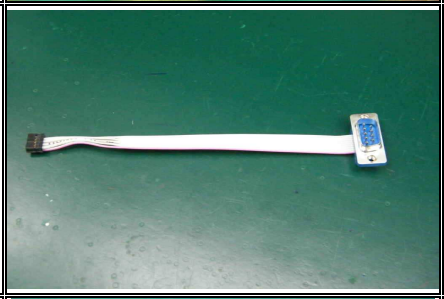
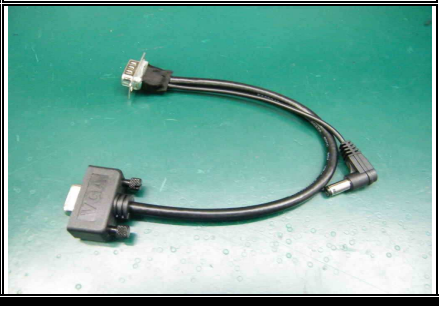
© Copyright Poindus Systems 2010

3CP000000020		POWER CORD (EU) TO MINI 3P
3CW000000100		LCD CABLE: A1255-H P=1.25 2x15pin female, A1253-H P=1.25 20pin female, 235mm
3CW000000521		VGA CABLE: internal VGA cable with power connecter D-SUB15PIN male, DuPont2.54, 2*5PIN+JST 2.0 4PIN,140mm,
1BA000000010		Battery: CMOS battery for PE01
3CW000000030		IDE CABLE for CF board: DuPont P2.0 2x22pin female, DuPont P2.0 2x22pin female
3CW000000020		Inverter cable: JSP P=2.0 6pin female, JST P=2.0 5pin female, 100mm

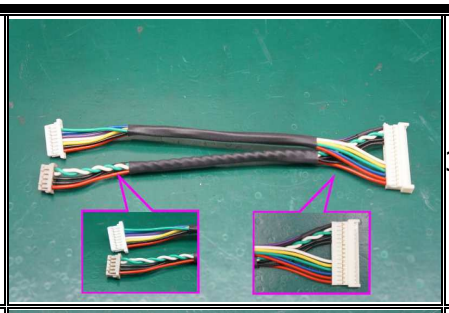
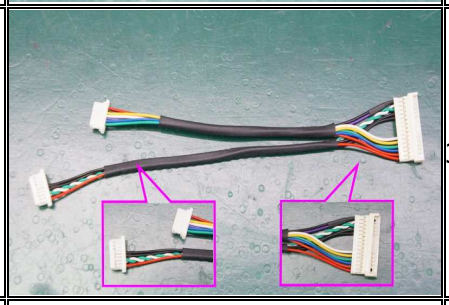
© Copyright Poindus Systems 2010

3CW000000040		SATA HDD cable: SATA 7+15pin female, SATA 7pin female, JST P=2.5 4pin female, 345mm
3CW000000060		Power button cable: JST P=2.0 2pin female, MR-21S-MZBB-F2, 200mm
3CW000000071		MSR extend cable: MOLEX P=1.25 15pin female, MOLEX P=1.25 15pin female, 300mm
3CW000000131		Audio cable: JST P=2.0 4pin female, JST P=2.0 4pin female, 300mm
3CW000000140		MIC cable: JSP P=2.0 3pin female, JST P=2.0 3pin female, 300mm
3CW000000090		USB cable: JST P=2.0 5pin female, MOLEX P=1.25 4pin female, 320mm

© Copyright Poindus Systems 2010

3CW000000160		Switch cable: JST P=2.0 2pin female, JST P=2.0 2pin female, 100mm
3CW000000050		LPT cable: DuPont P2.0 2x13pin female, DB25, 1600mm
3CW000000150		VFD cable: RJ48 10P10C TO RJ48 10P10C L=160mm(KC3951) for **52FVFDV1000D**
3CW000000740		VFD cable: RJ48 10P10C TO RJ48 10P10C L=160mm for **52F008V10006**
3CW000000010		Extend cable for COM4: DuPont P=2.0 2x5pin female, DB9 male, 140mm
3CW000000180		VGA+POWER CABLE FOR 2ND DISPLAY: D-SUB15PINmale, DC 5.5-2.5, D-SUB15PINfemale, 300mm

© Copyright Poindus Systems 2010

3CW000000300		3 in 1 cable: for MSR, Finger printer and I-Button
3CW000000310		3 in 1cable: for MSR+RFID only
3CW000000190		Extend VGA cable:DS-UB15PIN female,D-SUB15PIN female,110mm, W/O power pin
3CMD9MJT0100		COM3 CABLE: RJ45/DB9
3P00040B0600		LCD SIDE COVER: Gray
3P00040E0400		LCD SIDE COVER: White

© Copyright Poindus Systems 2010

3P00040B0200		LCD SIDE COVER: Black
3P00050D0200		HINGE COVER: Black
3P00050D0600		HINGE COVER: Gray
3P00050F0400		HINGE COVER: White
3P00050D1000		HINGE COVER: Green

© Copyright Poindus Systems 2010

3P00050D0800		HINGE COVER: Red
3P00032D0800		PPC I/O cover: Red
3P00032D0600		PPC I/O cover: Gray
3P00032F0400		PPC I/O cover: White
3P00032D1000		PPC I/O cover: Green

© Copyright Poindus Systems 2010

3P0003D0200		PPC I/O cover: Black
3P00030D0610		POS I/O cover w/o VFD: Gray
3P00030D0810		POS I/O cover w/o VFD: Red
3P00030D1010		POS I/O cover w/o VFD: Green
3P00030F0410		POS I/O cover w/o VFD: White

© Copyright Poindus Systems 2010

3P00030D0210		POS I/O cover w/o VFD: Black
3P00031D0610		POS I/O cover W/VFD: Gray
3P00031D0810		POS I/O cover W/VFD: Red
3P00031D1010		POS I/O cover W/VFD: Green
3P00031F0410		POS I/O cover W/VFD: White

© Copyright Poindus Systems 2010

3P00031D0210		POS I/O cover W/VFD: Black
3P00060D0600		VFD cover: Gray
3P00060D0800		VFD cover: Red
3P00060D1000		VFD cover: Green
3P00060F0400		VFD cover: White

© Copyright Poindus Systems 2010

3P00060D0200		VFD cover: Black
3P00090D0600		2nd display rear cover: Gray
3P00090D0800		2nd display rear cover: Red
3P00090D1000		2nd display rear cover: Green
3P00090F0400		2nd display rear cover: White

© Copyright Poindus Systems 2010

3P00090D0200		2nd display rear cover: Black
3P00070P0910		VFD LENS
3P00110K0200		2nd display LENS: Black
3P00110K0400		2nd display LENS: White

© Copyright Poindus Systems 2010

8 Appendix

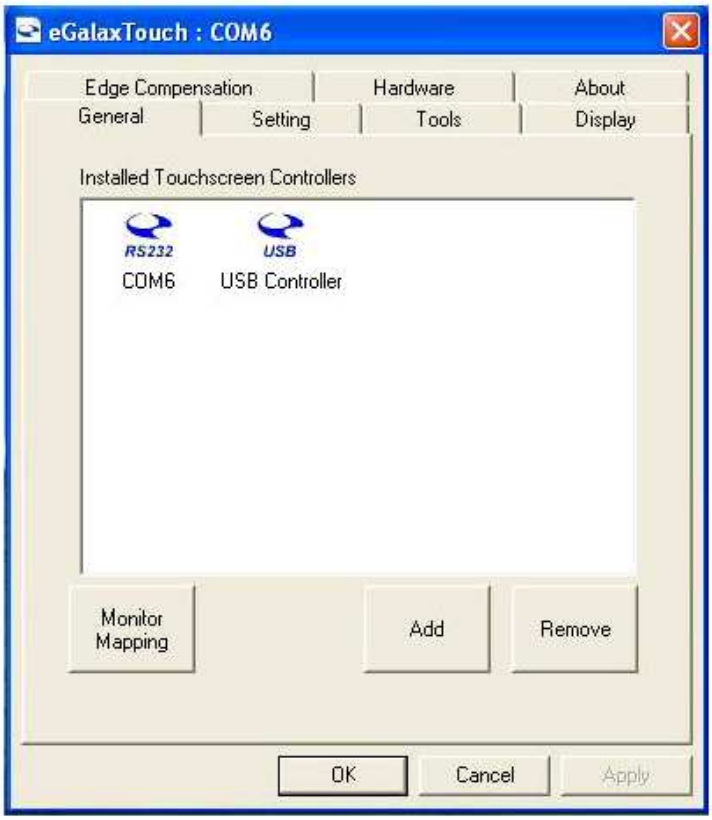
Drivers Installation:

The shipping package includes a Driver CD. You can find every individual driver and utility that enables you to install the drivers in the Driver CD.

Please insert the Driver CD into the drive and double click on the "autorun.exe" to pick up the models.

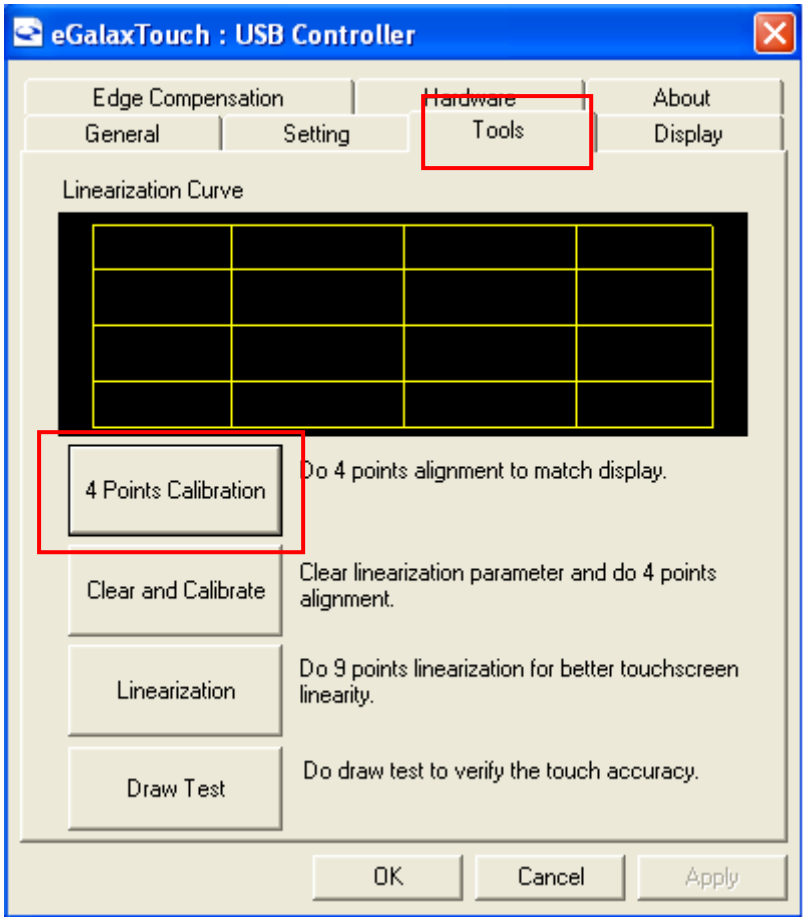
Notice:

1. If you use the **Resistive** touch panel, it is only showed COM6 installation finish image.
2. If you use the **PCT** touch panel, it will show the below image, please remove COM6 icon.
3. At the Windows 7 Operation System environment, when customer want to use PCT touch multi-touch it is not required to install the touch driver.
4. **Resistive touch is RS232 interface (COM6) and the PCT touch is USB interface**.

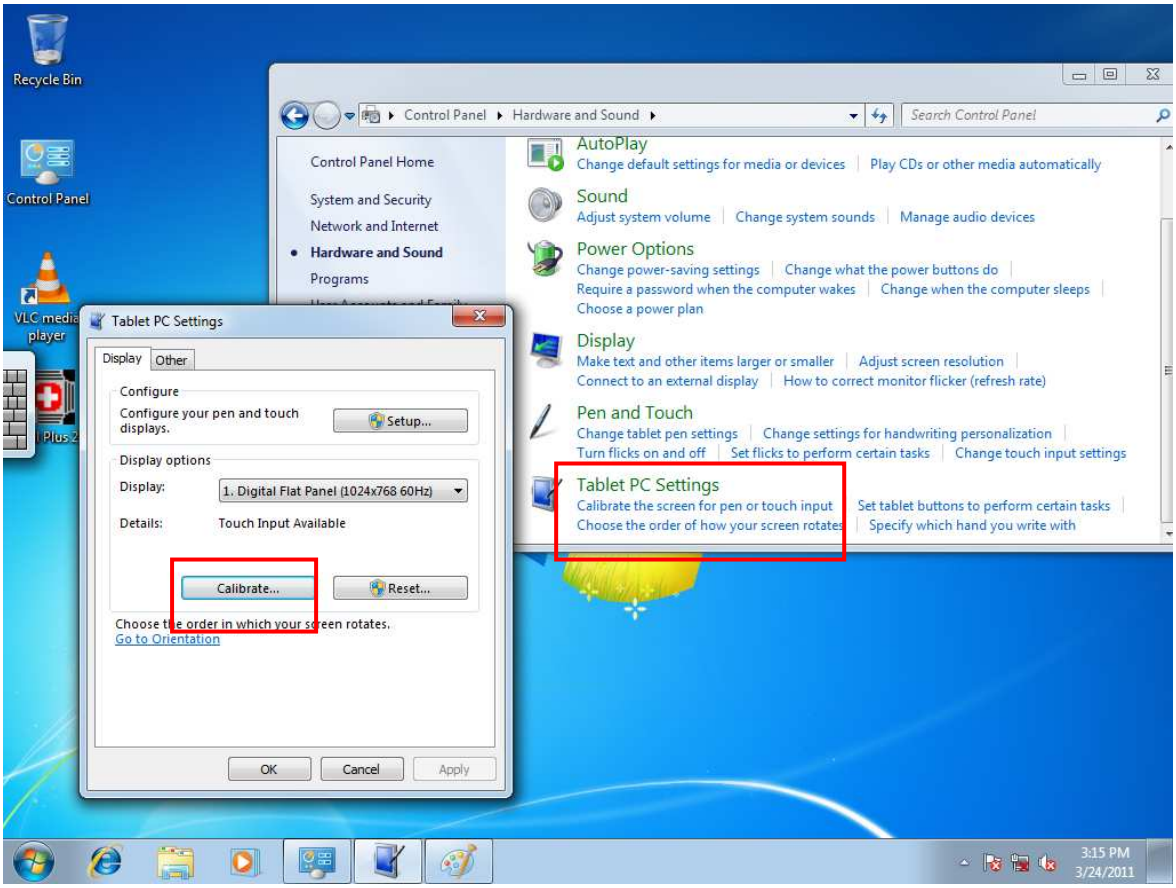


© Copyright Poindus Systems 2010

5. Calibration with EETI touch utility: please into "tool" page and press "4 Points Calibration".



6. Calibration in WIN7: Control panel→ Hardware and Sound→Tablet PC setting→Calibrate the screen from pen or touch input



© Copyright Poindus Systems 2010

Version Change History：

Version	Change Date	Change Content
V1.0	May, 2010	1st Release
V1.1	June, 2010	Change the base installation steps
V1.2	August, 2010	Change the Jumper Setting
V1.3	September, 2010	Add second display installation
V1.4	October, 2010	Update spare parts list Add calibration in Appendix

© Copyright Poindus Systems 2010